MONTHLY WEATHER REVIEW,

APRIL, 1879.

(General Weather Service of the United States.)

WAR DEPARTMENT,

Office of the Chief Signal Officen,

Telegrams and Reports for the Benefit of Commerce and Agriculture.

INTRODUCTION.

In compiling the present Review the following data, received up to May 14th, have been made use of, viz: the regular tri-daily weather charts, containing the data of simultaneous observations taken at 122 Signal Service stations and 12 Canadian stations, as telegraphed to this office; mouthly journals and means, 134 and 150 respectively, from the former, and monthly means from 14 of the latter; reports from 28 special Sunset stations; 217 monthly registers from Voluntary Observers; 40 monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; monthly reports from Voluntary Observers in, and the local Weather Services of, the States of Iowa and Missouri; reliable newspaper extracts; special reports.

BAROMETRIC PRESSURE.

Upon chart No. II is shown the general distribution of the atmospheric pressure, as reduced to sealevel, for the month by the isobaric lines. Compared with the means for April of previous years, the average pressure of the present month is lower for the Middle Atlantic and New England States from .02 of an inch in Virginia to .10 in Maine. It is about normal for the South Atlantic and Gulf coasts, and from the Pacific coast towards Utah and Montana. For the remaining districts it is higher; Ohio valley and Tennessee, from .03 to .08 inch; Lake region, from .00 along Lake Ontario to .09 on Lakes Michigan and Superior; Upper Mississippi valley, .05 to .07 inch; Lower Missouri valley, .03 to .12 inch; Red River of the North, .01 to .06 inch; Rocky Mountains and eastern slopes, .01 to .07 inch.

The Local Barometric Ranges for the month are as follows: California, from .34 of an inch at Sap Diego to .65 at Red Bluff; Oregon, 1.03 at Portland to 1.04 at Roseburg; Western Plateau, from .47 at Pioche to .65 at Salt Lake City; Rocky Mountains, from .64 at Virginia City and Cheyenne to .72 on Pike's Peak; eastern Rocky Mountain slope, from .78 at Deadwood and .92 at Fort Sill to 1.34 at North Platte; Gulf States, from .41 at Key West to .85 at Montgomery, .74 at New Orleans, .93 at Corsicana and 1.08 at Mason, Tex.; South Atlantic States, from .83 at Jacksonville to 1.02 at Charlotte, N. C.; Ohio valley and Tennessee, from .76 at Memphis to 1.18 at Pittsburg; Missouri valley, from .96 at Leavenworth to 1.29 at Yankton; Red River of the North valley, from 1.10 at Pembina to 1.13 at Breckenridge; Upper Mississippi valley, from .80 at St.Louis to .97 at Dubuque; Upper Lake region, from .74 at Duluth to 1.31 at Milwaukee; Lower Lake region, from .94 at Rochester to 1.08 at Toledo; Middle Atlantic States, from .97 at Norfolk to 1.18 at Albany; New England, from 1.17 at New Haven to 1.52 on Mt. Washington and 1.62 at Eastport.

Areas of High Barometer.—Of these eight are described. No. I generally produced the minimum temperatures of the month in Texas on the 2nd. No. II was quite remarkable in that the minimum temperatures over nearly the entire country from the Rocky Mountains eastward accompanied it; on the 3rd, from eastern Montana, Wyoming and Colorado eastward to Michigan, Lake Erie and the Ohio valley; 4th, Gulf States, (excepting Texas and Florida,) South Atlantic States, Middle States and northern New England; 5th, southern New England; 6th, northern Florida. No. IV generally caused the minimum temperatures from California to Utah on the 8th and 9th.

No. I—is a continuation of No XI, described in the *March* Review. On the morning of the 1st it was central in Nebraska and southern Dakota, with clear weather and temperatures below freezing from Montana and Wyoming to Kansas and the Lakes; minimum temperature at Pembina, —8°; a. m. barometer